

REMARKS

By this Amendment, Applicants have rewritten claims 3 and 12 in independent form, and amended claims 6, 7, 10, and 11 to improve readability. Claims 1-12 are pending.

In the Office Action, the Examiner objected to claims 3 and 12 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim, and rejected claims 4-11, and rejected claims 1-3 under 35 U.S.C. § 102(b) as anticipated by Voorman (U.S. Patent No. 4,780,690). Claims 4-11 were allowed. Claim 12 was objected to as dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants appreciate the indication of allowable subject matter.

Applicants respectfully traverse the Examiner's objection to claims 3 and 12 under 37 C.F.R. § 1.75(c). In order to expedite prosecution of this case, however, Applicants have amended claims 3 and 12 to incorporate subject matter of independent claims 1 and 4, respectively. Accordingly, Applicants respectfully request the Examiner to reconsider and withdraw the objection to claims 3 and 12.

Applicants respectfully traverse the rejection of claims 1-3 under 35 U.S.C. § 102(b), because Voorman fails to teach each and every element of these claims.

For example, claim 1 recites, inter alia, "a field effect transistor including a gate terminal connected to a junction point of the first and second resistors . . . ; and a control circuit which controls the voltage-current conversion ratio of the transistor

according to the time constant control signal." Voorman fails to teach at least these elements of claim 1.

With reference to Fig. 1, Voorman teaches a filter circuit that includes a transconductor 10 including two transistors T₁ and T₂. "Between the outputs 11 and 12 of the transconductor 10 a load circuit is arranged, comprising two substantially identical resistors R₁ and R₂, whose junction point is connected to the common base of two PNP transistor T₃ and T₄ by means of a diode . . . [T]he transconductance of the transconductor can then be varied over a wide range by varying the current of the current source I₁, so that a large range of time constants can be obtained." See Voorman, col. 3, l. 42 - col. 4, l. 39.

The Examiner considered Voorman's transistor T₃ as corresponding to Applicants' claimed field effect transistor, and Voorman's current source I₁ as corresponding to Applicants' claimed control circuit. Office Action, pp. 2-3. Applicants disagree, because Voorman's transistor T₃ and current source I₁ cannot respectively correspond to Applicants' claimed field effect transistor and control circuit. Specifically, assuming, arguendo, that Voorman's transistor T₃ corresponds to Applicants' claimed field effect transistor, Voorman's current source I₁ cannot correspond to Applicants' claimed control circuit because it does not control "the voltage-current conversion ratio of" transistor T₃, as required by claim 1. See Fig. 1 of Voorman.

In fact, Voorman's current source I₁ does not control "the voltage-current conversion ratio of" any transistor and therefore cannot correspond to Applicants' claimed "control circuit." To the extent that the Examiner may argue that Voorman's current source I₁ controls transistor T₁ or T₂, Applicants note that Voorman's current

source I_1 does not control "the voltage-current conversion ratio of" transistor T_1 or T_2 . Moreover, Voorman's transistor T_1 or T_2 cannot correspond to Applicants' claimed field effect transistor, because the gate terminal of Voorman's transistor T_1 or T_2 is not "connected to a junction point of the first and second resistors," as required by claim 1.

In view of the above, Voorman fails to teach at least "a field effect transistor including a gate terminal connected to a junction point of the first and second resistors . . . ; and a control circuit which controls the voltage-current conversion ratio of the transistor according to the time constant control signal," as recited in claim 1.

Therefore, claim 1 is patentable over Voorman. Claim 2 depends from claim 1 and is also patentable over Voorman at least because of its dependence from claim 1.

Similarly, claim 3 recites, inter alia, "a field effect transistor including a gate terminal connected to a junction point of the first and second resistors . . . ; and a control circuit which controls the voltage-current conversion ratio of the transistor according to the time constant control signal." As discussed above, Voorman fails to teach at least these elements of claim 3. Therefore, claim 3 is patentable over Voorman.

In view of the foregoing remarks, Applicants respectfully request the reconsideration and reexamination of this application and the timely allowance of the pending claims 1-12.

Please grant any extensions of time required to enter this response and charge
any additional required fees to our deposit account 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

Dated: April 4, 2005

By:


Qingyu Yin*

*With limited recognition under 37 C.F.R. § 10.9(b).